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EXAMINER

HILL, LAURA C

ART UNIT PAPER NUMBER

3761

DATE MAILED: 12/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/753,531

Applicant(s)

KENMOCHI ET AL

Examiner

Laura C. Hill

Art Unit

3761

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 10/11/05
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1 and 6-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Suzuki et al. (US 5,746,730; herein 'Suzuki'). Regarding claims 1 and 7 Suzuki discloses pull-on disposable wearing article 1 comprising:

Front and rear waist sections 1A, 1B opposed to each other and a crotch region extending between the regions (col. 6, ll. 59-66, figure 3),

A waist-surrounding upper end margin 5 defined by front and rear waist regions and extending in a longitudinal direction and connected to waist hole 3 and leg holes 4 (col. 6, ll. 66-col. 7, line 1, figure 3);

First and second leg-surrounding lateral margins (figure 3);

A liquid-absorbent core 13 laid in front waist region 1A, rear waist region 1B and crotch region (figure 1);

Said crotch region having outer/first and inner/second folding lines L1, L2 formed to extend upwardly from the proximal end toward the distal end of a strip member in a

Art Unit: 3761

diverging relationship toward each other so that two triangles/first and second zones T1, T2 are defined (col. 10, ll. 29-46, figures 21B and 22);

First and second gathers/longitudinal barriers 81, 82 on opposite sides of the core and each comprising first and second elastic strip members and each elastic strip member extending along the leg hole 4 across the first zone to the third zone and across the second zone to the third zone inside the side edge of the core to define a containment zone for absorbing or holding exudates (col. 9, ll. 60-67, col. 10, ll. 10-13, figure 22);

Said inner leg gather that contains first zone T1 and second zone T2 which are tucked convexly inward of the leg hole in the crotch region along folding lines which

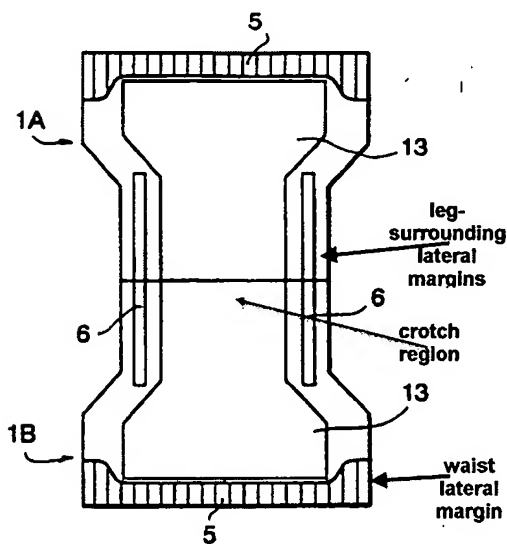


FIG. 3

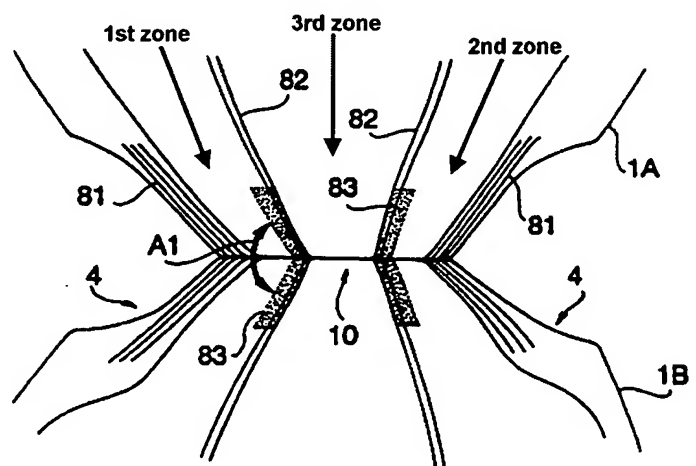


FIG. 22

extend divergently and upwardly from the proximal end toward the distal end so that a cross-over flap 82a is formed (col. 10, ll. 27-33, figure 21A).

Regarding claim 6 Suzuki discloses the article above with respect to claim 1 and further discloses the article comprises an absorbent body 13 interposed between body-facing liquid permeable top sheet 11 and garment-facing liquid impermeable back sheet 12 (col. 7, ll. 4-9, figure 2).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
2. Claims 2-3, 11-13, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al. (US 5,746,730; herein 'Suzuki'). Regarding claims 2-3 Suzuki discloses the article with first and second elastic members as discussed above with respect to claim 1. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Suzuki et al. to have contraction percentages and stretch stress in the ranges claimed, since it has been held that where

the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Regarding claim 11 Suzuki discloses first and second elastic members disposed between longitudinal barriers 81, 82 and first and second fold lines above with respect to claim 7. Suzuki et al. does not expressly disclose the members are pre-stretched. It would be obvious to one of ordinary skill in the art at the time the invention was made to modify Suzuki et al. to have pre-stretched elastic members since Suzuki et al. discloses a wearing article with first and second elastic members and fold lines.

Regarding claims 12-13 Suzuki discloses first and second elastic members as discussed above with respect to claims 7 and 11. Suzuki does not expressly disclose the contraction percentage and stretch stress ranges claimed. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Suzuki et al. to include the contraction percentage and stretch stress ranges, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Regarding claim 16 Suzuki discloses the wearing article with core interposed between liquid pervious and liquid impervious sheets as discussed above with respect to claims 6 and 11.

3. Claims 4-5, 8-10, 14-15 and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al. (US 5,746,730; herein 'Suzuki') in view of Otsubo et al. (US 6,666,851; herein 'Otsubo').

The applied reference (Otsubo) has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(I)(1) and § 706.02(I)(2).

Regarding claim 4 Suzuki does not expressly disclose the core has stiffness lower in the first and second zones than in the third zone. Otsubo discloses a trunk-type disposable diaper 1 comprising: Front and rear opposed waist regions 2, 3 and a crotch region 10 extending between said waist regions (col. 2, ll. 45-50); an elastically stretchable member/waist-surrounding upper end margin 8 (col. 2, ll. 58-62); transversely opposite waist lateral margins are connected to form waist-opening 6 and leg-openings 7 (col. 2, ll. 53-58, figure 1); leg-surrounding lateral margins defined by said crotch region and extending in a leg-surrounding direction (figure 1); a liquid-

Art Unit: 3761

absorbent core 14 in front and rear waist regions and the crotch region (col. 2, line 65, figure 1); said crotch region 10 being formed with a pair of first and second folding guide lines L1, L2 extending transversely across a zone defined between the peripheral edge portions 7a so that said crotch region 10 is divided into triangular first and second zones S1, S2 and a third zone S3 extending from the folding guide lines L1, L2 into the front trunk region 2 (col. 3, ll. 15-18 and 24-30, figure 7); an elastic member 30 with plurality of elements/first and second elastic member disposed along the waist region (col. 4, ll. 30-33); said first and second zones S1, S2 tucked convexly-inwardly of leg-hole of diaper 1 as indicated by arrow X (col. 3, ll. 38-41, figure 3). Otsubo further discloses third zone with a stiffness inherently lower in the first and second zones S1 and S2 since these zones are formed by fold lines and are therefore more flexible than the unfolded third zone in order to be folded. Otsubo does not expressly disclose the first and second elastic members extending in the leg-surrounding direction across the first zone to the third zone and across the second zone to the third zone. It would be obvious to one of ordinary skill in the art at the time the invention was made to modify Suzuki et al. to include a third zone with a lower stiffness than in the first and second zones since both references disclose wearing articles with first and second folding guide lines defining first, second and third zones and first and second elastic members.

Regarding claim 5 Suzuki does not expressly disclose that the core is absent in first and second zones. Otsubo discloses the absorbing capacity of core 14 lying in crotch region 10 is not affected by the unfolding of the first and second zones S1, S2 since the core 14 lying in the crotch region 10 is dimensionally constant (col. 4, ll. 2-5). It



would be obvious to one of ordinary skill in the art at the time the invention was made to modify Suzuki to include the dimensionally constant core of Otsubo to provide a core absent in the first and second zones for enhanced article performance since both references disclose wearing articles with first and second folding guide lines defining first, second and third zones and first and second elastic members.

Regarding claims 8-9 Suzuki discloses a first and second elastic strip member above with respect to claim 1. Suzuki further discloses the elastic strip members are joined to top sheet 12 (col. 12, ll. 14-16). Suzuki does not expressly disclose the elastic members are directly attached to the core, disposed below the core, between the core and an impervious cover sheet. Otsubo discloses elastic members 31 are disposed and bonded under tension between the top- and back sheets 22, 21 and absorbent core 23 is disposed between these two sheets 21, 22 (col. 4, ll. 15-21 and 35-39). Otsubo does expressly disclose the elastic members are directly attached to the core. It would be obvious to one of ordinary skill in the art at the time the invention was made to modify the elastic members of Suzuki et al. to be directly attached to the core, since it has been held that a mere reversal of the essential working parts of a device involves only routine skill in the art. *In re Einstein*, 8 USPQ 167.

Regarding claim 10 Suzuki/Otsubo disclose first and second elastic strip member and absorbent core that are tucked inwardly as discussed above with respect to claim 1. Otsubo further discloses when the first and second zones S1, S2 containing elastics are tucked in, a transverse dimension M of the crotch region 25 is smaller than the corresponding dimension M before the zones S1, S2 are tucked in (col.4 , ll. 57-61 and

figure 7). It would be obvious to one of ordinary skill in the art at the time the invention was made to modify Suzuki et al. to include the shorter elastic members of Otsubo et al. since both references disclose wearing articles with first and second folding guide lines defining first, second and third zones and first and second elastic members.

Regarding claims 14-15 Suzuki/Otsubo disclose the core stiffness and core absence as discussed above with respect to claims 4-5 and 11.

Regarding claim 17 Suzuki/Otsubo disclose the wearing article as with first and second elastic members and core discussed above with respect to claims 1 and 11. Otsubo further discloses welding spots/third elastic members 27 arranged so that in use they rise above said core 13 and first and second elastic members (col. 4, ll. 24-30, figure 6). One would be motivated to modify the article of Suzkuki with rising longitudinal barriers to provide a barrier to side body fluid leakage since both references are in the same field of endeavor; absorbent wearing articles with first and second folding guide lines. Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made to modify the article, thus providing joined third elastic members.

Regarding claims 18-20 Suzuki/Otsubo disclose the first and second elastic members as discussed above with respect to claims 8-11.

Regarding claims 21-22 Suzuki/Otsubo disclose the core is folded along folding lines and is present in the tuck as discussed above with respect to claims 1, 4 and 11.

### ***Response to Arguments***

Applicant's arguments filed 11 October 2005 have been fully considered but they are not persuasive.

4. In response to Applicant's argument that 'Suzuki fails to teach or disclose a first **elastic** member extending **across said first zone to said third zone**' (see Remarks page 11), it is noted that elastic is defined as 'capable of being easily stretched or expanded and resuming former shape, flexible' (Merriam-Webster online dictionary) and 'flexible and adaptable' (Oxford online dictionary). During examination, the claims must be interpreted as broadly as their terms reasonably allow. *In re American Academy of Science Tech Center*, 367F.3d 1359, 1369, 70 USPQ2d 1827, 1834 (Fed. Cir. 2004). This means that the words of the claim must be given their plain meaning unless applicant has provided a clear definition in the specification. *In re Zletz*, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989) (discussed below); *Chef America, Inc. v. Lamb-Weston, Inc.*, 358 F.3d 1371, 1372, 69 USPQ2d 1857 (Fed. Cir. 2004) [See MPEP 2111.01 R-3 for further discussion.] Since Applicant has not otherwise defined the term 'elastic' in the specification, the term is given its broadest reasonable plain meaning of flexible and adaptable. Suzuki discloses inner leg gathers 82 comprise a strip member formed of suitably *flexible* material (column 10, lines 8-9). Furthermore, Suzuki extends across the first zone to the third zone since elastic inner leg gathers 82 comprise a strip that extends longitudinally across a crotch region of the absorbent article (column 10, lines 8-10). It is noted that Examiner's annotated Figure 22 is one non-limiting example of the 'zone' location since the term 'zone' could be any area on the chassis of the absorbent article (i.e.: zones could divide the article longitudinally or laterally into thirds for example to form first, second and third zones).

5. In response to Applicant's argument that 'Suzuki fails to disclose first folding guide lines extending from two points on said first leg-surrounding lateral margin toward a transverse middle of said crotch region' (see Remarks page 12), Examiner notes that although line L2 extends along (and not across) distal end of strip member, folding line L3 traverses (extends along a lateral axis) the strip member at a suitable angle with respect to the folding line (column 10, lines 48-54). Furthermore, folding line L1 extends from two points on the leg margins across toward a transverse middle of the crotch region (see figure 21B).

6. In response to Applicant's argument that 'Suzuki clearly fails to teach or suggest first and second elastic members are disposed between and inwardly spaced from longitudinal barriers' (see Remarks pages 13-14), two elastic strands are an integral part of longitudinal barriers 81, 82 and therefore are capable of being spaced between each barrier.

7. In response to Applicant's argument that 'Suzuki fails to teach or suggest the first and second elastic members intersecting first and second folding lines, respectively' (see Remarks page 13), it is noted that the term 'intersect' is given its broadest reasonable plain meaning of 'dividing something by lying across the object' (see Oxford online dictionary). Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made to since elastic members in longitudinal barriers 81, 82 lie across the folding lines as discussed above, the elastic members intersect the folding lines.

8. In response to Applicant's argument that the Examiner must prove result-effective variables achieves a recognized result in the prior art (see Remarks pages 13-14), the contraction percentage and stretch stress are result effective variables since they are at least a result of the amount of force applied, the number of elastics used in the article, and the type of elastic material used. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the first and second elastics of Suzuki with the contraction percentage and stretch stress values, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch and Slaney*, 617 F. 2d 272, 205 USPQ 215 (CCPA 1980).

9. In response to Applicant's argument that 'with respect to claims 4 and 14 the Examiner's rejection is not understood' (see Remarks page 14), Otsubo discloses third zone with a stiffness inherently lower in the first and second zones S1 and S2 since these zones are formed by fold lines and are therefore more flexible than the unfolded third zone in order to be folded as previously discussed. The first and second zones have a lower stiffness than the third zone since the first and second zones contain folding lines which would increase flexibility and therefore lower stiffness in these zones.

10. In response to Applicant's argument that 'with respect to claims 5, 10, 15 and 20, the Examiner's obviousness rejection lacks a proper suggestion or motivation to combiner the references' (see Remarks page 14), it is noted that motivation is provided as discussed above with respect to claim 5.

11. In response to Applicant's argument that 'with respect to claim 17 the Examiner's obviousness rejection lacks a proper suggestion or motivation to combiner the references' (see Remarks page 14), it is noted that motivation is provided as discussed above with respect to claim 17.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura C. Hill whose telephone number is 571-272-7137. The examiner can normally be reached on Monday through Friday (off every other Friday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tatyana Zalukaeva can be reached on 571-272-1115. The fax phone

Art Unit: 3761

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Laura C. Hill  
Examiner  
Art Unit 3761

LCH



TATYANA ZALUKAEVA  
SUPERVISORY PRIMARY EXAMINER

